

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Eberle et al.

Group Art Unit: Not Assigned

Application No. Not Assigned

Examiner: Not Assigned

Filed: September 12, 2003

For: A METHOD FOR MANUFACTURING  
AN INTRAVASCULAR ULTRASOUND  
TRANSDUCER ASSEMBLY HAVING A  
FLEXIBLE SUBSTRATE

INFORMATION DISCLOSURE STATEMENT

Mail Stop Patent Application  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Pursuant to 37 CFR 1.97 and 1.98, the references listed on the enclosed Form PTO-1449 and/or Substitute Form PTO-1449 ("Form 1449") are submitted for consideration by the Examiner in the examination of the above-identified patent application.

The full consideration of the references in their entirety by the Examiner is respectfully requested and encouraged. Also, it is respectfully requested that the references be entered into the record of the present application and that the Examiner place his or her initials in the appropriate area on the enclosed Form 1449, thereby indicating the Examiner's consideration of each of the references.

The submission of the references listed on the Form 1449 is for the purpose of providing a complete record and is not a concession that the references listed thereon are prior art to the invention claimed in the patent application. The right is expressly reserved to establish an invention date earlier than the above-identified filing date in order to remove any reference submitted herewith as prior art should it be deemed appropriate to do so.

Further, the submission of the references is not to be taken as a concession that any reference represents art that is relevant or analogous to the claimed invention. Accordingly, the right to argue that any reference is not properly within the scope of prior art relevant to an examination of the claims in the above-identified application is also expressly reserved.

The Information Disclosure Statement is being filed:

- ☒ **within** any one of the following time periods: (a) within three months of the filing date of a national application other than a continued prosecution application under

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37 CFR 1.53(d); (b) within three months of the date of entry of the national stage as set forth in 37 CFR 1.491 of an international application; (c) before the mailing date of a first Office Action on the merits; or (d) before the mailing of a first Office Action after the filing of a request for continued examination under 37 CFR 1.114.

- ☐ **after** (a), (b), (c) or (d) above, but before the mailing date of a final action under 37 CFR 1.113, a Notice of Allowance under 37 CFR 1.311, or an action that otherwise closes prosecution in the application, and includes *one* of:

☐ the Statement under 37 CFR 1.97(e) (see "Statement under 37 CFR 1.97(e)" below).

*or*

☐ the fee of \$180 set forth in 37 CFR 1.17(p) (see "Fees" below).

- ☐ **after** the mailing date of a final action under 37 CFR 1.113 or a Notice of Allowance under 37 CFR 1.311, or an action that otherwise closes prosecution in the application, and on or before payment of the issue fee, and includes the Statement under 37 CFR 1.97(e) (see "Statement under 37 CFR 1.97(e)" below), and the fee of \$180 as set forth in 37 CFR 1.17(p) (see "Fees" below).

- ☐ **after** the mailing date of a Notice of Allowance under 37 CFR 1.311, and on or before payment of the issue fee, and **within** thirty days of receiving each item of information contained in the Information Disclosure Statement, and includes the Statement under 37 CFR 1.704(d) (see "Statement under 37 CFR 1.704(d)" below), and the fee of \$180 as set forth in 37 CFR 1.17(p) (see "Fees" below).

NOTE: This is for original applications except applications for a design patent, filed on or after May 29, 2000, wherein a paper containing only an Information Disclosure Statement in compliance with 37 CFR 1.97 and 1.98 is being filed.

#### Copies of the References

- ☐ Copies of the references listed on the enclosed Form 1449 are enclosed herewith. Attached to each reference not in the English language is a concise explanation of the relevance pursuant to 37 CFR 1.98(a)(3). An English-language equivalent/patent, or an English-language abstract, or an English-language version of the search report or action by a foreign patent office in a counterpart foreign application indicating the degree of relevance found by the foreign office is being submitted in lieu of a concise explanation of the relevance pursuant to 37 CFR 1.98(a)(3).

- ☐ A copy of the foreign search report is enclosed herewith.

- ☒ The references listed on the enclosed Form 1449 were previously identified in the parent application(s) of the present application, and copies of the references were furnished at that time. Accordingly, additional copies of the references are not submitted herewith, so as not to burden the file with duplicate copies of references. The Examiner is respectfully requested to carefully review the references in accordance with the requirements set out in the Manual of Patent Examining Procedure. In accordance with 37 CFR 1.98(d), the details of the parent application(s)

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relied upon for an earlier filing date under 35 USC 120 in which copies of the references were previously furnished are set out below:

U.S. APPLICATIONS		Status ( <i>check one</i> )		
U.S. APPLICATIONS	U.S. FILING DATE	PATENTED	PENDING	ABANDONED
1. 09/550,864	April 17, 2000		X	
2.				
3.				

**Statement under 37 CFR 1.97(e)**

- ☐ The **undersigned** hereby states that each item of information contained in the Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign patent application not more than three months prior to the filing of the Information Disclosure Statement.
- ☐ The **undersigned** hereby states that no item of information contained in the Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign patent application, and, to the knowledge of the undersigned after making reasonable inquiry, no item of information contained in the Information Disclosure Statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the Information Disclosure Statement.

**Statement under 37 CFR 1.704(d)**

- ☐ The **undersigned** hereby states that each item of information contained in the Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart application and that this communication was not received by any individual designated in 37 CFR 1.56(c) more than thirty days prior to the filing of the Information Disclosure Statement.

**Fees**

- ☒ No fee is owed by the applicant(s).
- ☐ The **IDS Fee of \$180** under 37 CFR 1.17(p) is enclosed herewith.

**Method of Payment of Fees**

- ☐ Attached is a check in the amount of \$ .
- ☐ Charge Deposit Account No. 12-1216 in the amount of \$ . (A duplicate copy of this communication is enclosed for that purpose.)

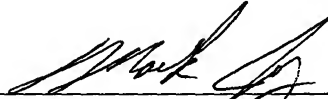
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**Authorization to Charge Additional Fees**

- ☒ If any additional fees are owed in connection with this communication, please charge Deposit Account No. 12-1216. (A duplicate copy of this communication is enclosed for that purpose.)

**Instructions as to Overpayment**

- ☒ Credit Account No. 12-1216.  
☐ Refund

  
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Date: September 12, 2003

IDS (Revised 5/21/03)

FORM PTO-1449  
MODIFIEDU.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICEATTY. DOCKET NO.  
204763SERIAL NO.  
Not assignedINFORMATION DISCLOSURE STATEMENT  
BY APPLICANTAPPLICANT  
Eberle et al.

(Use several sheets if necessary)

FILING DATE  
09/12/03

GROUP

## U.S. PATENT DOCUMENTS

EXAMINER'S INITIALS		PATENT NUMBER	ISSUE DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	AA	3,827,115	08/06/74	Bom			
	AB	3,938,502	02/17/76	Bom			
	AC	4,191,193	03/04/80	Seo			
	AD	4,211,949	07/08/80	Briskin et al.			
	AE	4,456,013	06/26/84	De Rossi et al.			
	AF	4,576,177	03/18/86	Webster, Jr.			
	AG	4,582,067	04/15/86	Silverstein et al.			
	AH	4,645,961	02/24/87	Malsky			
	AI	4,665,331	05/12/87	Sudo et al.			
	AJ	4,665,925	05/19/87	Millar			
	AK	4,704,774	11/10/87	Fujii et al.			
	AL	4,728,834	03/01/88	Kumar et al.			
	AM	4,734,963	04/05/88	K. Ishiyama			
	AN	4,794,931	01/03/89	Yock			
	AO	4,821,731	04/18/89	Martinelli et al.			
	AP	4,841,977	06/27/89	Griffith et al.			
	AQ	4,917,097	04/17/90	Proudian, deceased et al.			
	AR	4,951,677	08/28/90	Crowley et al.			
	AS	4,975,607	12/04/90	Hara et al.			
	AT	5,042,493	08/27/91	Saito et al.			
	AU	5,044,053	09/03/91	Kopel et al.			
	AV	5,046,503	09/10/91	Schneiderman			
	AW	5,081,993	01/21/92	Kitney et al.			
	AX	5,109,860	05/05/92	Gelly et al.			
	AY	5,117,831	06/02/92	Jang et al.			
	AZ	5,174,296	12/29/92	Watanabe et al.			
	BA	5,176,141	01/05/93	Bom et al.			
	BB	5,183,048	02/02/93	Eberle			
	BC	5,186,177	02/16/93	O'Donnell et al.			
	BD	5,199,437	04/06/93	Langberg			
	BE	5,240,003	08/31/93	Lancee et al.			
	BF	5,243,988	09/14/93	Sieben et al.			
	BG	5,257,629	11/02/93	Kitney et al.			
	BH	5,273,045	12/28/93	Chihara et al.			
	BI	5,320,104	06/14/94	Fearnside et al.			
	BJ	5,351,691	10/04/94	Brommersma			

FORM PTO-1449 MODIFIED	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. 224396	SERIAL NO. Not assigned
INFORMATION DISCLOSURE STATEMENT BY APPLICANT  (Use several sheets if necessary)		APPLICANT Eberle et al.	
		FILING DATE 09/12/03	GROUP

## U.S. PATENT DOCUMENTS

EXAMINER'S INITIALS		PATENT NUMBER	ISSUE DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	BK	5,359,760	11/01/94	Busse et al.			
	BL	5,368,037	11/29/94	Eberle et al.			
	BM	5,402,791	04/04/95	Saitoh et al.			
	BN	5,423,220	06/13/95	Finsterwald et al.			
	BO	5,453,575	09/26/95	O'Donnell et al.			
	BP	5,467,779	11/21/95	Smith et al.			
	BQ	5,479,930	01/02/96	Gruner et al.			
	BR	5,493,541	02/20/96	Snyder			

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	PUBLICATION DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO*
	CA	1 402 192	02/22/72	Netherlands				
	CB	GB 2208138A	03/01/89	Great Britain				
	CD	GB 2208138B	03/01/89	Great Britain				
	CE	WO 88/09150	12/01/88	WIPO				
	CF	WO 89/04142	05/18/89	WIPO				
	CG	WO 93/02809	02/18/93	WIPO				
	CH	WO 93/15419	08/05/93	WIPO				
	CI	JP 54149615	11/24/79	Japan				
	CJ	EP 0145429	06/19/85	EPO				
	CK	EP 0671221	09/13/95	EPO				
	CL	GB 2287375A	09/13/95	Great Britain				

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

DA	Lockwood et al., "A 45 to 55 MHz Needle-Based Ultrasound System for Invasive Imaging," <u>Ultrasonic Imaging</u> , 15 (1), 1-13 (January 1993)
DB	Martin et al., "An Ultrasonic Catheter for Intravascular Measurement of Blood flow: Technical Details," <u>IEEE, SU 27</u> (6), 277-286 (November 1980)
DC	Black et al., "CMOS Chips for Invasive Ultrasound Imaging," <u>IEEE Journal of Solid-State Circuits</u> , 29 (11), 1381-1387 (November 1994)
DD	Bom et al., "Early and Recent Intraluminal Ultrasound Devices," <u>International Journal of Cardiac Imaging</u> , 4, 79-88 (1989)
DE	O'Donnell et al., "Experimental Studies on an Efficient Catheter Array Imaging System," <u>Ultrasonic Imaging</u> , 17 (2), 83-94 (1995)

\*A concise statement of relevance is being submitted in lieu of a translation. 37 CFR § 1.98(b).  
1449FORM (Rev. 3/6/96)